

June 19 2022 entry

Washington apartment 2030 – Linear television has disappeared, giving way to streaming. Internet based television offers viewers the advantage of managing content. 3D printers are in every home after increased affordability made them a standard household appliance. Substations power appliances remotely without plugs.

Quantumrun predictions for 2050

Most fish stocks that existed in 2015 are extinct

6 million people now die from complications with air pollution

2 billion people now live in countries with absolute water scarcity

5 billion of the world's projected 9.7 billion people now live in water stressed areas

Neurotechnologies enable people to interact with their environment and other people by thought alone

6.3 billion people will live in cities

Half of the world's population will be short sighted

Toyota stops selling gasoline powered cars

Coffee becomes a luxury due to climate change

Skyscrapers (an arcology) that function as cities are built to address growing populations

Athabasca glacier disappears by losing 5 meters per year since 2015

China's South to North water transfer project is built

World population estimated to reach 9,725,147,000

Share of global car sales autonomous 90%

World sales of electric vehicles reach 26,366,667

Moore's law calculations per second per \$1000 equals all human brain power globally

Average number of internet connected devices per person is 25

Global number of internet connected devices reaches 237,500,000,000

Worst case forecasted rise in global temperatures above pre-industrial levels is 2.5 degrees celsius

Automation and job losses – one hundred years ago about 70 percent of our population worked on farms to produce enough food for the country. Today, that percentage is less than two percent. Thanks to the coming automation revolution being driven by increasingly capable machines and artificial intelligence (AI), by 2060, we could find ourselves entering a world where 70 percent of today's jobs are handled by 2 percent of the population. Last ditch efforts against automation

As the number of jobs begins to fall sharply during the early 2040s, governments will attempt a variety of fast fix tactics to try to stem the bleeding. By 2040-2050, the average person will no longer have to worry about needing a job, nor will the economy have to worry about not having enough consumers to function.

The search for meaning – This new, abundant age we're entering into is one that will finally see the end of mass wage labor, just as industrialization saw the end of mass slave labor. The future will be an age where the puritan guilt of having to prove oneself through hard work and the accumulation of wealth will be replaced by a humanistic ethic of self-improvement and making an impact in one's community.

Tax migration – In early June 2022, the Wall Street journal published an interesting article on a new phenomenon called "The Great Pandemic Wealth Migration". During COVID-19, wealthy Americans from New York and California fled to sunnier, more tax-friendly climes. The explanation lies in the changes in the way to work that the COVID-19 Pandemic induced. COVID allowed Americans to work remotely, and many wondered why they would stay in high-tax states like New York and California.

Reddit post– Is Web3 really the future? December 6 2021 – I've seen many posts on Tech Twitter talking about how Web3 is the future, but also Tech Twitter is full of people who either think JS is the

best programming language of the worst. So it's filled with people who would just get into the first wagon it goes around, so I'd like to ask outside of Tech Twitter.

Deep tech, or technology based on scientific research and discoveries, is taking up more space at major innovation conferences like Vivatech, which takes place in Paris until June 18. In France this approach is seen as particularly relevant to the problems of the 21st century, with the increase in epidemics and climate change – and the country hopes to play a serious role in this burgeoning field.

It feels like the opposite of Mark Zuckerberg's metaverse. Instead of cute avatars in a virtual world of fun and discovery, deep tech gives off the impression of being more serious, complex and elusive for the average Facebook user. Indeed, the lack of visibility of this technology is due in part to the vagueness surrounding the term. Deep tech, or deep technology, refers to innovations resulting from scientific research that find their way into commercialized products or services. The effect of the pandemic on deep tech – The COVID-19 pandemic has shown that this technology is not abstract or difficult to understand. “That vaccines could be put on the market in one year, when before it would have taken almost a decade, is due to deep tech”, says Blanchin. Moderna and BioNTech were able to use research into artificial intelligence applied to medicine to speed up the development of molecules needed to combat SARS-Cov-2.

Researchers have discovered that a traumatic brain injury to one part of the brain changes the connections between nerve cells across the entire brain. To get a closer look at the damaged brain connections, Hunt and his team devised a technique for reversing the clearing procedure and proving the brain with traditional anatomical approaches. The findings suggest that the long projections of a distant nerve cell were still present in the damaged brain, but they no longer formed connections with inhibitory neurons. “It looks like the entire brain is being carefully reprogrammed to accommodate for the damage, regardless of whether there was direct injury to the region or not”, explained Alexa Tierno, a graduate student and co-author of the study. “But different parts of the brain probably aren't working together quite as well as they did before the injury.” The researchers wanted to determine if it was possible for inhibitory neurons to be reconnected with distant brain regions. To find out, Hunt and his team transplanted new interneurons into the damaged hippocampus and mapped their connections based on the team's earlier research demonstrating interneuron transplantation can improve memory and stop seizures in mice with TBI. The new neurons received appropriate connections from all over the brain. While this may be a sign it could be possible to entice the injured brain to repair these lost connections on its own, Hunt said learning how transplanted interneurons integrate into damaged brain circuits is essential for any future attempt to use these cells for brain repair.

June 20 2022 entry – Long COVID could be a “mass deterioration event” – A tidal wave of chronic illness could leave millions of people incrementally worse off.

America's first CRISPR trial is still nearly 100% effective nearly 3 years on. Incredible new data presented at the European Hematology Association Congress has revealed an experimental CRISPR editing therapy is both safe and effective up to three years after treatment. The follow-up results come from one of the longest running human trials using CRISPR technology to treat a pair of rare blood diseases. The first human trial in the United States to test CRISPR gene editing technology started back in 2019. The trial focused on two rare blood diseases – beta thalassemia and sickle cell disease. The treatment involves first gathering stem cells from a patient's blood. Using CRISPR technology, a simple genetic change is made designed to raise levels of fetal hemoglobin in red blood cells. The stem cells are then re-administered into the patients. Initial results were extraordinarily promising. The first two patients treated were essentially cured within months but questions over long term efficacy

remained. A follow up announcement last year continued the impressive results with 22 patients treated and all demonstrating 100 percent success.

Maldives – a city is rising from the waters of the Indian Ocean. In a turquoise lagoon, just 20 miles by boat from Male, the Maldivian capital, a floating city, big enough to house 20,000 people, is being constructed. Designed in a similar pattern to brain coral, the city will consist of 5,000 floating units including houses, restaurants, shops and schools, with canals running in between. The first units will be unveiled this month, with residents starting to move in early 2024, and the whole city is due to be completed by 2027.

New NASA documents reveal the earliest it plans a permanent lunar camp is 2035 ; China has penciled in 2031 for the beginning of its International Lunar Research Station

AI detects autism speech patterns across different languages – A new study led by Northwestern University Researchers used machine learning – a branch of artificial intelligence – to identify speech patterns in children with autism that were consistent between English and Cantonese.